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Public Lands & Western Communities

The demographics of the West are changing rapidly. Net migration into the West and changing social preferences for recreation opportunities and environmental amenities are increasing demand for recreational/environmental goods and services which is, in turn, reshaping the economic relationship between public lands and rural communities.

Net migration into the West has exceeded migration into other areas of the country by a large margin. For 1990-97, net migration into nonmetro areas of the West was three times that into nonmetro areas outside the West (10.2 percent compared with 3 percent). For the same period, net migration into Western metro areas was over twice that for metro areas in other regions (3.7 percent compared with 1.6 percent).

Public lands include many types of land administered by a number of government agencies, including the Department of Defense, Department of Interior (Bureau of Land Management, Bureau of Indian Affairs, National Park Service, and others), Department of Agriculture (Forest Service), and other Federal, state, and local agencies. This article focuses on lands administered by the Forest Service (FS) and the Bureau of Land Management (BLM).

Recent statistics show that for lands managed by the FS and BLM, visitor days for recreation increased from 225 million in 1983 to over 400 million in 1997. These changes indicate the need for policymakers to recognize both the growing recreational and environmental demands on public lands and the ongoing needs of traditional users of these lands—such as livestock producers, logging operations, and mining interests.

Land management regulations were first imposed on uses of forest reserve lands (now Forest Service lands) in 1897 and grazing fees were first imposed in 1906. The Taylor Grazing Act (1934) established control over grazing on the public domain now administered by BLM.

Multiple-use management objectives (defined as "a combination of balanced and diverse resource uses that consider long-term needs for renewable and nonrenewable resources, including recreation, livestock grazing, timber, minerals, watershed, and wildlife, along with scenic, scientific, and cultural values"), came into vogue in the 1970s and became important components of FS policy. These objectives were incorporated into a serious land-management strategy for both agencies with the adoption of "Rangeland Reform '94", which expanded the emphasis in public land policy to include a broader set of uses than livestock grazing. A recent example of this shift is in the Mojave Desert, where cattle grazing has been restricted to protect the endangered desert tortoise.

Emerging Uses of Public Lands in the West

Many activities in addition to livestock grazing occur on public lands. Several independent studies demonstrate the economic contributions of these activities to rural communities. One study found that 77 million people in the U.S. spend $104 billion for wildlife recreation annually. Another found that for two public grazing allotments in Idaho, hunting for elk and deer had a higher economic value than livestock grazing—suggesting potential benefits from multiple-use management. Results from a Utah study estimated the implicit value of an extra deer at $64 (in 1997 dollars). A survey of recreation activity studies, including camping, fishing, hunting, skiing, picnicking, boating, and water sports, estimated expenditures ranging from $9.28 per person per activity day (PPAD) for camping to $240 PPAD for non-motorized boating (1997 dollars). The survey also valued big game hunting between $29 and $206 PPAD. The share of these activities occurring on public lands was not specified.

FS/BLM statistics demonstrate the changing economic and recreational environment of Western public lands. Recreation categories are virtually the only categories showing increases from 1988-97, and the changes are dramatic—almost a twenty-fold increase in FS recreation fee receipts. These receipts are partially offset by costs of providing recreational services. Traditional activities, like mining and timber, have decreased or increased only moderately.

Sporting activities, many of which take place on public lands, have mostly increased in the West. The number of anglers in the West (including Hawaii) increased 22 percent from 1980-90.

How Are Grazing Fee Receipts Distributed?

Forest Service fees:

- 25 percent to states for distribution to the county of origin for roads and schools,
- 25 percent to the U.S. Treasury, and
- 50 percent to the Range Betterment Fund, which is used to improve forests from which it was collected.

Bureau of Land Management fees:

- Grazing permit receipts (Section 3 of the Taylor Grazing Act):
  - 12.5 percent to the state where collected,
  - 37.5 percent to the U.S. Treasury, and
  - 50 percent to the Range Betterment Fund, which is used to improve public lands from which it was collected;
- Grazing lease receipts (Section 15 of the Act):
  - 50 percent to the state where collected, and
  - 50 percent to the Range Betterment Fund.

Hunters declined by half a percent, but the number of sportsmen overall increased by 18 percent.

The snow-skiing industry has been growing for some time. Ski areas are often heavily-used, year-round recreation facilities that contribute significantly to the economic activity of rural communities. Nationally, 41-53 percent of ski areas operated with a FS permit from 1972-93. Colorado Ski Country USA observed that money flowing into ski areas often comes from outside sources, but remains in the local economies. In several counties, net taxable retail sales increased from $3-$14 million in 1963 to $22-$72 million in 1974. In its impact study of the Colorado ski industry, Colorado Ski Country USA, concluded that counties with snow-skiing areas have achieved major improvements in socioeconomic conditions over the study period.

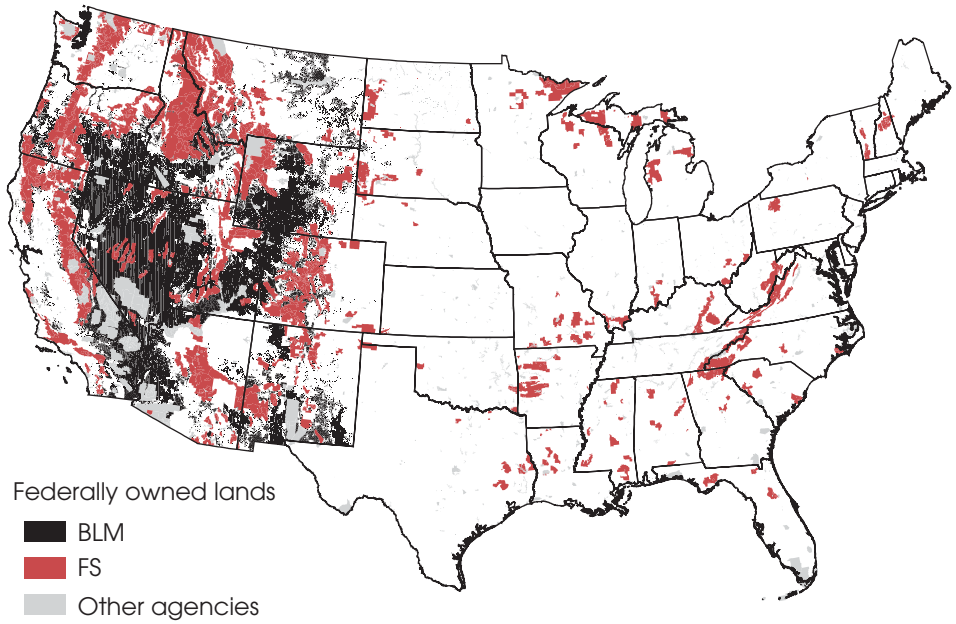
Economics of Public Land Ranching

Public-land ranching has also changed over time in the Westwide states (the 11 states west of Kansas, Nebraska, North Dakota, Oklahoma, South Dakota, and Texas). Grazing needs are usually measured in animal unit months (AUMs)—the amount of forage or vegetative feed required to sustain a 1,000-pound cow (and her calf up to six months of age) for one month. This measure assumes that an animal unit consumes about 26 pounds of forage (dry-weight basis) per day. While public grazing AUMs for billing purposes have declined only about 1 percent from 1982-92, the number of permittees has declined 14 percent, and cash receipts for cattle and calves have decreased 7 percent (in 1982-84 dollars). Real receipts for public grazing allotments from 1988-97 have decreased by a third or more.

Despite the persistent image of the typical Western livestock producer as a public-land rancher, only about 6 percent of livestock producers in the 17 states west of the Mississippi River have FS/BLM grazing allotments. Nationally, public-land ranchers account for less than 1 percent of operations with beef cattle. The approximately 28,000 grazing allotment permits in the 17 Western states (Westwide states plus Kansas, Nebraska, North Dakota, Oklahoma, South Dakota, and Texas) are distributed to about 23,600 permittees (operations). In this same area, and excluding dairy operations and feedlots, there are about 414,000 operations with beef cattle. Some 3-4 million head of beef cattle in the Westwide states, or about 40 percent of beef cattle inventories (about 8 percent nationally), may spend some time grazing public lands. The remaining forage needs are met through private sources, like private pasture, hay, some other harvested forage, or from other non FS/BLM-administered public land.

Despite the omnipresence of public lands in the West, livestock grazing on public

Most Public Lands Are Administered by the Forest Service and Bureau of Land Management



Economic Research Service, USDA

Recreation Categories Show Largest Gains in Public Land Use Receipts

	1988	1997	Percent change[1]
	$ *Million*		*Percent*
Forest Service			
Sale of timber and use of other forest resources	1,289	197	-84.7
Use of National Grasslands & land utilization areas	41	24	-40.1
Timber sale area betterment	323	14	-95.6
Cooperative work for others	79	40	-50.0
Brush disposal	80	19	-75.6
Miscellaneous (sales, rentals,damages, etc.)	14	10	-30.7
Restoration of forest lands and improvements	0	1	433.5
Golden Eagle passports*	0	1	1,848.4
Timber salvage sales	40	177	347.7
Operation and maintenance of quarters	8	7	-9.3
Gifts, donations, and bequests	2	1	-63.0
Cash receipts from FS lands collected in conjunction with, and deposited to, accounts of other agencies	188	158	-16.2
Noncash income (roads built by timber purchasers)	133	37	-72.3
Total	4,184	2,682	-35.9
Bureau of Land Management			
Mineral leases and permits	367	48	31.2
Sales of timber	327	83	-74.7
Sales of land and materials	10	19	94.3
Grazing leases, licenses, and permits			
Permit receipts (Section 3)	17	12	-30.5
Lease receipts (Section 15)	3	2	-34.0
Other	1	1,	-21.7
Fees and commissions	4	1	-69.9
Rights-of-way	4	7	76.0
Rent of land	0	1	107.6
Recreation fees	0	4	
Other sources	1	2	121.9
Total	403	179	-55.5

1. In 1997 dollars.
*Golden Eagle passports are used by the National Parks to allow consumers to prepay park entrance fees annually.
Sources: Report of the Forest Service: Fiscal Year 1988 and 1997, USDA, Forest Service, 1989 and 1998. Public Land Statistics: 1988 and 1997, U. S. Department of Interior, Bureau of Land Management, 1989 and 1998.

Economic Research Service, USDA

land accounts for a relatively modest share of the economic activity of the West as a whole. Livestock receipts in 1992 for the Westwide states totaled about $16 billion, representing 1 percent of total Westwide states gross domestic product. Cattle and calves and sheep and lambs accounted for about 65 percent of the $16 billion, and less than 40 percent of that, or about $3-$4 billion, can be attributed to grazing on public lands.

Studies of economic effects of changes to public grazing policies (often proposed as grazing fee increases or reductions in grazing allotments) on livestock-based rural communities generally show reduced ranch incomes. Ranch incomes fall because reduced allotments reduce the number of cattle sold and/or forage costs rise. There are also implications for ranch values and asset values used in loan collateral calculations. In addition, direct effects on ranch incomes would lead to indirect and income effects as reduced ranching activity impacts other local economic sectors—feed suppliers, equipment dealers, other agricultural suppliers, and local consumers. Economic effects are generally larger for locally affected areas, but tend to dissipate as the geographic scale of economic activity increases—often disappearing at the national level. However, grazing fee increases would generate partially offsetting, communitywide, positive economic effects because large portions of fee receipts are distributed within the area where fees are collected.

A recent analysis by USDA's Economic Research Service (ERS) grouped 416 counties according to the share of total countywide AUMs estimated to come from FS/BLM-administered public land. Thirteen counties were 80- to 100-percent dependent on federal lands for forage, 27 were 50- to 80-percent dependent, 36 were 30- to 50-percent dependent, 82 were 10- to 30-percent dependent, and 258 were 0- to 10-percent dependent. The data were then examined for the 10 most dependent counties in each of the dependency groups (a subset of 50 counties).

Generally, the less dependent an area is on Federal land for grazing, the more available are alternative sources of forage, especially privately-owned land. The study found that 62 percent of counties in the Westwide states depend on FS/BLM-administered land for up to 10 percent of their total livestock forage (including 10 percent of counties with no dependence on Federal land). These counties accounted for 60 percent of Westwide AUMs and 73 percent of Westwide livestock sales.

Three-fourths of counties Westwide derive less than one-fifth of their total AUMs from FS/BLM-administered land. These counties account for 73 percent of Westwide AUMs and 82 percent of Westwide livestock sales.

Highly dependent counties tend to be somewhat clustered and could indicate areas where local economic effects could be highly significant and with more than local impact. Fewer than 10 percent of counties derive half or more of their total livestock forage from FS/BLM-administered grazing allotments. Westwide, these counties account for less than 6 percent of AUMs and less than 5 percent of livestock sales. Counties showing more than 50 percent dependence on FS/BLM-administered land tend to be among the least densely populated counties.

Economics of Rural Communities

Economic data for these 416 counties in the Westwide states demonstrate the importance of activities other than livestock grazing.

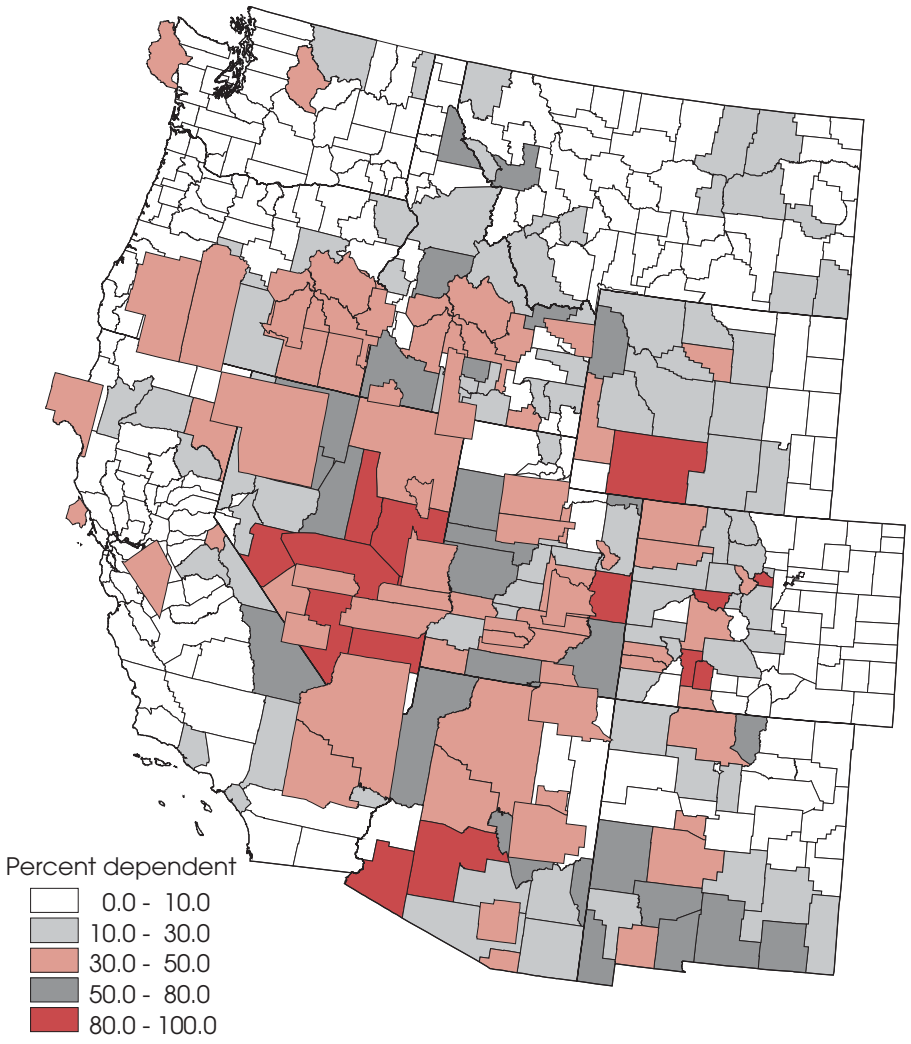
As a share of county personal income, agricultural value exceeds 50 percent for only four of the remaining 50 counties:

- Camas County, Idaho (57 percent),
- Lincoln County, Idaho (71 percent),
- Power County, Idaho (87 percent), and
- Prairie County, Montana (96 percent).

All four counties have low populations, ranging from 991 people (Camas County) to 7,538 (Power County).

As important as agriculture is to these counties, the shares of county income estimated to come from public land ranges from 2.5 percent in Power County to 21 percent in Lincoln County. Lincoln County, at 73-percent dependence, is the only one of these four counties whose livestock industry is more than 50-percent dependent on public land. The livestock industry in Prairie County is 30-percent dependent on public land. However, the Prairie County economy is heavily dependent on livestock production, with the value of agricultural products equivalent to 96 percent of personal income and 69 percent of the value of agricultural products coming from livestock sales. These counties would likely be severely affected by adverse grazing policies.

Less Than 10 Percent of Counties Get More Than Half Their Forage From FS/BLM Lands



Economic Research Service, USDA

Personal income for these 50 counties ranged from $14.37 million (Mineral County, Colorado) to $71 billion (San Diego County, California) in 1997. For most of these counties, the market value of all agricultural products is less than 10 percent of personal income. The majority of income in these counties comes from nonagricultural sources, like mining, construction, manufacturing, services, and government. Often, these and other activities also depend on public land. Services, including services for recreation and tourist-oriented industries, and government, account for large shares of personal income. Industry sales for mining are 50 times higher than agricultural sales in Sweetwater County, Wyoming, where livestock account for almost 80 percent of agricultural product sales. Agricultural sales in Sweetwater County are also small compared with construction, manufacturing, services, and government. A large share of income for Power County, $73 million, is from manufacturing. One caveat is that of these activities, like manufacturing and government, some portion is often involved in supporting agricul-

ture, but not always counted as agriculture in the economic data.

Multiple Uses for Multiple Users

Public lands continue to be economically important to rural communities throughout the West, although the nature of the relationship is changing. While traditional land use activities remain important, continuing demographic changes in the West are likely to put additional pressures on public land use. Traditional uses such as grazing, mining, and forestry remain key sources of rural jobs and income. At the same time, alternative uses of public lands such as outdoor recreation and conservation have gained in economic importance to rural communities. Selling recreation-related goods and services such as lodging, guide services, and equipment to public land visitors has become a vital part of many rural economies. Similarly, some of the fastest growing areas in the West are rich in natural environmental amenities and are near public lands whose abundance of wildlife and open spaces attracts new residents.

For public land managers concerned with the health and well-being of rural communities, it is increasingly important to balance the needs of a much more diverse set of users and activities than in the past. Where the demand for open space is a significant factor in generating economic growth in a community, grazing activities on public lands not only support ranching activity on adjacent private lands, but also act as a buffer to rapid urbanization and/or loss of open spaces.

For most rural economies, and for the West as a whole, expanding the multiple-use management objective for public lands to include more emphasis on recreational opportunities and environmental amenities will mean relatively minor, and in some cases, modestly positive economic impacts. For those communities that are heavily dependent on ranching and public land grazing, economic effects could be significant. Analysis of use of public lands for livestock grazing, from the more aggregate rural and regional economy perspectives, showed that negative economic impacts associated with the changing relationship between rural economies and public lands are generally limited to ranchers who are directly affected and a few rural communities. AO

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For further information see:

A Time to Act, a Report of the USDA National Commission on Small Farms, can be accessed at www.reeusda.gov/smallfarm/report.htm

Cromartie, J.B., and J.M. Wardwell. "Migrants Settling Far and Wide in the Rural West." www.ers.usda.gov/Publications/rdp/rdpsept99/contents.htm

For data on local area personal income see: U.S. Department of Commerce, Bureau of Economic Analysis www.bea.doc.gov/bea/regional/reis

June Releases—National Agricultural Statistics Service

The following reports are issued electronically at 3 p.m. (ET) unless otherwise indicated.
www.ers.usda.gov/nass/pubs/pubs.htm

June

3 Dairy Products
Egg Products
Crop Progress (4 p.m.)
4 Weather - Crop Summary (noon)
5 Broiler Hatchery
7 Dairy Products Prices (8:30 a.m.)
Milkfat Prices (8:30 a.m.)
Poultry Slaughter
10 Crop Progress (4 p.m.)
11 Weather - Crop Summary (noon)
12 Crop Production (8:30 a.m.)
Broiler Hatchery
13 Turkey Hatchery
14 Dairy Products Prices (8:30 a.m.)
Potato Stocks
17 Milk Production
Crop Progress (4 p.m.)
18 Weather - Crop Summary (noon)
19 Broiler Hatchery
20 Cherry Production (tent.) (8:30 a.m.)
21 Dairy Products Prices (8:30 a.m.)
Milkfat Prices (8:30 a.m.)
Catfish Processing
Cattle on Feed
Chickens and Eggs
Cold Storage
Livestock Slaughter
24 Crop Progress (4 p.m.)
Monthly Agnews
25 Weather - Crop Summary (noon)
26 Broiler Hatchery
27 Agricultural Prices
Peanut Stocks and Processing
28 Acreage (8:30 a.m.)
Dairy Products Prices (8:30 a.m.)
Grain Stocks (8:30 a.m.)
Quarterly Hogs and Pigs